DROGICHINA, E.A., doktor med. nauk; KEVORK'YAN, A.A., prof.; LUR'YE, Z.L., prof.; LISITSA, F.M., dotsent; PENTSIK, A.S., prof.; PESHKOVSKIY, G.V., prof.; SHAKHNOVICH, R.A., prof.; DAVIDENKOV, S.N., prof., otv. red.; BOGOLEPOV, N.K., prof., zam. otv. red.;

[Multivolume manual on neurology]Mnogotomnoe rukovodstvo po nevfologii. Moskva, Medgiz. Vol.3. Book 2.[Infectious and topic diseases of the nervous system]Infektsionnye i toksicheskie bolezni nervnoi sistemy. 1962. 524 p. (MIRA 15:11)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Davidenkov).

(NERVOUS SYSTEM--DISEASES)

[redacted], M.L., prof., red.; KULIKOVTSEV, M.A., red.

[Methodological fundamentals of medical expertise on the capacity for work in diseases of the peripheral nervous system] Metodicheskie osnovy vrachebno-trudovoi ekspertizy pri zabolevaniiakh perifericheskoi nervnoi sistemy. Moskva, Meditsina, 1964. 111 p. (MIRA 17:6)

SHAKHNOVICH, M.A.; BYCHKOVA, Ye.N.; KARASIN, B.Z.

Viral etiology of acute primary infectious polyradiculoneuritis. Zhur. nevr. i psikh. 65 no.11:1656-1658 '65. (MIRA 18:11)

1. Nevrologicheskoye otdeleniye 67-y gorodskoy klinicheskoy bol'nitsy (zaveduyushchiy B.Z.Karasin, glavnyy vrach P.S. Petrushko) i Institut virusologii AMN SSSR, Laboratoriya gravnitel'noy virusologii (zaveduyushchiy - prof. A.K.Shubladze), Moskva.

SHAKHNOVICH, R.A.; BOBROVA, Ye.N.; KARASIN, E.Z.

Viral etiology of acute polimery infectious polyradiculoneuritis. Zhur. nevr. i psikh. 65 no.11:1656-1658 '65.

(MIRA 18:11)

1. Nevrologicheskoye otdeleniye 67y gorodskoy klinicheskoy bol'nitsy (zaveduyushchiy E.Z.Karasin, glavnyy vrach P.S. Petrushko) i Institut virusologii AMN SSSR, laboratoriya sravnitel'noy virusologii (zaveduyushchiy - prof. A.K.Shubladze), Moskva.

SHAKHNOVICH, S.E.

Coefficients of heat exchange through windows and doors. Vod. i san.tekh. no.4:30-31 Jl '55. (MLRA 8:12)
(Heat--Radiation and absorption)

SHAKHNOVICH, S.E.

Tables for determining the amount of heat transfer resistance in walls. Vod.i san.tekh. no.8:25-29 N '55. (MLRA 9:3)
(Heat—Radiation and absorption)

SHAKHNOVICH, S.F.

Radiator calculations for water heating systems. Ved. i san. tekh. no.5:12-14 Ag '55. (MLRA 9:2)
(Radiators)

SHAKHNOVICH, S. I. Cand. Med. Sci.

Dissertation: "On the Visceral Disturbances in Affections of the Cerebral Cortex." Central Inst. for Advanced Training of Physicians. 27 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

KOCHKOV, N. S., SHAKHNOVICH, S. I.

A new type of oscillograph. Sovet. med. No. 5, May 50. p. 26-8

1. Of the Clinic of Vegetative Pathology MONIKI (Director--Prof. N. S. Chetverikov).

CLML 19, 5, Nov., 1950

KRASNOV, M.L.,professor.; KRICHEVSKAYA, Ye.I.,kandidat meditsinskikh nauk.; SHAKHNOVICH, S.I.,kandidat meditsinskikh nauk.,; SHUL'PINA, N.B. kandidat meditsinskikh nauk.,; GEL'FMAN, A.Ya.vrach.

Dicoumarin in a thromboembolic syndrome of the retinal blood vessels. Vest. oft. 68 no.1:3-8 Ja-F '56 (MLRA 9:5)

1. Iz kafedry glaznykh bolezney TSentral'nogo instituta usovershenstvovaniya vrachey (zav.-prof. M.L. Krasnov) i Moskovskoy glaznoy klinicheskoy bol'nitsy (glav. vrach-I.A. Lyubchenko)
(RETINA--BLOOD SUPPLY)

SHAKHNOVICH, S.Yu.

Invasion of erythrocytes by Plasmodium in various clinical forms of tropic malaria. Med. parazit., Moskva no.1:48-53 Jan-Feb 1953. (CIML 24:4)

1. Of the Propedeutic Therapeutic Clinic of the Pediatric and Sanitary Faculties of Tashkent Medical Institute.

SHAKHNOVICH, S.Yu.

Morphology of the peripheral autonomic nervous system in comatose and fulminant malaria. Med.paraz. i parazbol.supplement to no.1: 38-39 '57. (MIRA 11:1)

(NERVOUS SYSTEM, AUTONOMIC) (MALARIA)

18(5,7) SOV/128-59-4-15/27

AUTHORS: Zasetskiy, G.F., and Shakhnovich, V.A., Engineers

TITLE: New Method to Study Solidification Processes

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 4, pp 34-35 (USSR)

ABSTRACT: Under the methods to determine the peculiarities in the formation of the hard phase during the solidification process of castings, the authors special interest is directed to one method which is based on the introduction of radioactive isotopes into the fluid phase and their distribution in between the fluid and the hard phase. This method makes it possible to determine at any given moment the extent of the hard phase. It is also possible to trace a heterogeneous concentration. Although this method is not questioned in its value, it is applied only to a small extent as a result of the high costs connected with it. It was therefore decided (on a proposal of G.F. Zasetskiy) to introduce sulphur into the fluid phase in order to get a better knowledge of the solidification process. This method is based on the difference in the

Card 1/3

diffusion of sulphur in the fluid and in the hard phase, and also on the fact, that crystal sulphur combines with iron. The amount of sulphur in the iron indicates at any given moment from the beginning of the solidification, how thick the layer of the hard phase is. The amount of sulphur brought into the fluid phase should exceed the normal percentage of sulphur in the metal by 5 to 10 times. To bring the sulphur in the fluid phase of the casting it is necessary to keep the riser part of the casting in a fluid state. This is done by heating the casting. This method makes it possible to trace the development of the different stages in the solidification process. Furthermore the separating surface of the fluid and the hard phase, the dendrite structure on this surface, the metal flow in the fluid phase, and the influence of that flow on the formation of the microstructure of the cast can be determined. Figure 1 shows the outline of the layer in the hard phase, figure 2 shows

traces of sulphur. The mathematical results will be described in a forthcoming paper. There are 2 photograph.

S/128/60/000/007/006/017
A105/A033

AUTHOR: Shakhnovich, V.A.

TITLE: Burning Loss of Alloying Elements During Steel Melting in Induction Furnaces

PERIODICAL: Liteynoye proizvodstvo, 1960, No. 7, p. 39

TEXT: The author describes steel melting processes in open induction furnaces with magnesite-lined crucibles of 12, 50, 80 and 150 kg capacity. The charge consisted of carbon steel cuttings of the following chemical composition: 0.04-0.07% C; 0.2-0.3% Si; 0.15-0.3% Mn; 0.2% Ni; 0.2% Cu; 0.025-0.035% S; 0.015-0.025% P and alloying additives with a lower oxygen affinity than Ni, FeMo, Cu, FeW. A slag cover was obtained by adding freshly burnt lime and fluorspar to the amount of 2-3% of the charge weight. After melting and overheating to 60-80°C the melted slag was removed and replaced by a fresh one of identical composition. Melted slag was reduced with 70% Al and 30% CaO to white slag, the bath being deoxidized beforehand with 0.2% Mn and 0.2% Si. The reduced and heated metal (1,560-1,600°C) was enriched with FeCr,

Card 1/6

Burning Loss of Alloying Elements During Steel Melting in Induction Furnaces

heated to 200-300°C. After adding more than 4% Cr the ferrochrome was heated to 500-600°C. After its complete melting the remaining ferromanganese and ferrosilicon was added, provided the manganese and silicon-content in steel did not exceed 0.6%. The metal was then heated to its final temperature, the slag reduced with B CaO removed, and the metal reduced with 0.03% aluminum after which ferro-vanadium, ferrotitanium, ferroniobium and silicon-zirconium were added. The final reduction was achieved by the addition of 0.15% calcium silicon. Data on the burning loss rate of various alloying agents are shown in the Table. There is 1 table.

SHVARTS, V.I.; LEONOV, M.A.; SHAKHNOVICH, V.A.

Heat-resistant iron-base alloy. Biul. TSIICHM no.3:49 '61.
(MIRA 14:12)

(Heat-resistant alloys)

L 13274-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)/EWA(h) JD

ACC NR: AP6002907 SOURCE CODE: UR/0286/65/000/024/0073/0073

INVENTOR: Shvarts, V.I.; Tsypkina, Ye. D.; Rogachevskiy, Ya. Ye.; Shakhnovich, V. A.; Uvarov, V. A.; Rovenskiy, I. L.; Balter, M. A.; Likhovskikh, M. N.

ORG: none

TITLE: Cast, heat-resistant, iron-base alloy. Class 40, No. 177078

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 73

TOPIC TAGS: alloy, cast alloy, heat resistant alloy, iron base alloy, chromium containing alloy, nickel containing alloy, tungsten containing alloy, molybdenum containing alloy, niobium containing alloy, manganese containing alloy

ABSTRACT: This Author Certificate introduces a cast, heat-resistant, iron-base alloy. To improve mechanical and technological properties, the alloy composition is as follows: 0.18—0.22% carbon, 19—21% chromium, 24—26% nickel, 4.5—5% tungsten, 0.9—1.1% molybdenum, 0.9—1.1% niobium, 0.1% nitrogen, 0.02% cerium, 0.005% boron, 0.8% max silicon, 1.2—1.5% manganese, 0.03% max each of sulfur and phosphorus. [AZ]

SUB CODE: 11/ SUBM DATE: 10Oct63/ ATD PRESS: 4185

UDC: 669.15'24'26-194

Card 1/1

SHAKHNOVICH, V. R. DECEASED 1963/1

C. 1961

PHYSIOLOGY

SEE ILC

SHAKHNOVICH, V. V.

PA 19T58

USSR/Instruments, Measuring Instruments, Electronic

Feb/Mar 1946

"Universal Portable Measuring Apparatus," V. V. Shakhnovich, 1 p

"Vestnik Svyazi - Elektro Svyaz'" No 2/3 (71-72)

Discusses the new portable measuring apparatus which is to make up some of the shortage of measuring apparatus at the various regional offices of communications. This apparatus is able to measure direct and indirect current as well as voltage.

19T58

SHAKHNOVICH, V. V.

PA 19T85

USSR/Voltmeters Aug 1946
Ohmmeters

"Use of a Voltmeter as an Ohmmeter," V. V. Shakhnovich, 1½ pp

"Vestnik Svyazi - Elektro Svyaz'" No 8 (77)

Discussion of how an ordinary closed voltmeter with scale of 3.15 to 150 volts (manufactured by the Electropribor Factory) can be used as an ohmmeter.

19T85

SHAKHNOVICH, Ya. vrach (Kiyev)

Invisible rays. Zdorov'e 4 no.12:21 D '58 (MIRA 11:12)
(ULTRAVIOLET RAYS)

BLANK, A.G.; SHAKHNOVICH, Yu.B.; TRIFEL', M.S.

Periodic cathodic polarization of steel. Izv. AN Azerb. SSR. Ser. fiz. tekh. i khim. nauk no.2:83-89 '59. (MIRA 12:8)
(Steel--Corrosion)

SHAKHNOVSKAYA, F.B.; PRAVDIN, N.S., professor, nauchnyy rukovoditel'.

Toxicology of chlorinated naphthalenes. Farm.i toks. 16 no.2:43-47 Mr-Ap '53. (MLRA 6:6)

1. Toksikologicheskaya laboratoriya Instituta gigiyeny truda i profzabolevaniy Akademii meditsinskikh nauk SSSR. (Naphthalene--Toxicology)

USSR/Medicine - Toxicology, Lead Poisoning — Jul/Aug 53

"The Effect of the Functional Condition of the Central Nervous System on the Course of Lead Poisoning," N. K. Kulagina, F. B. Shakhnovskaya, Inst of Labor Hygiene and Occup Diseases, Acad Med Sci USSR

Farmakol i Toksikol, Vol 16, No 4, pp 51-57

Found that Br compounds (i.e. drugs which restore and strengthen inhibitory reactions) alleviate lead

270T41

poisoning in rats, while agents which contribute to development of the irritation process in the cerebral cortex (i.e. caffeine) aggravate this poisoning.

270T41

SHAKHNOVSKAYA, N.

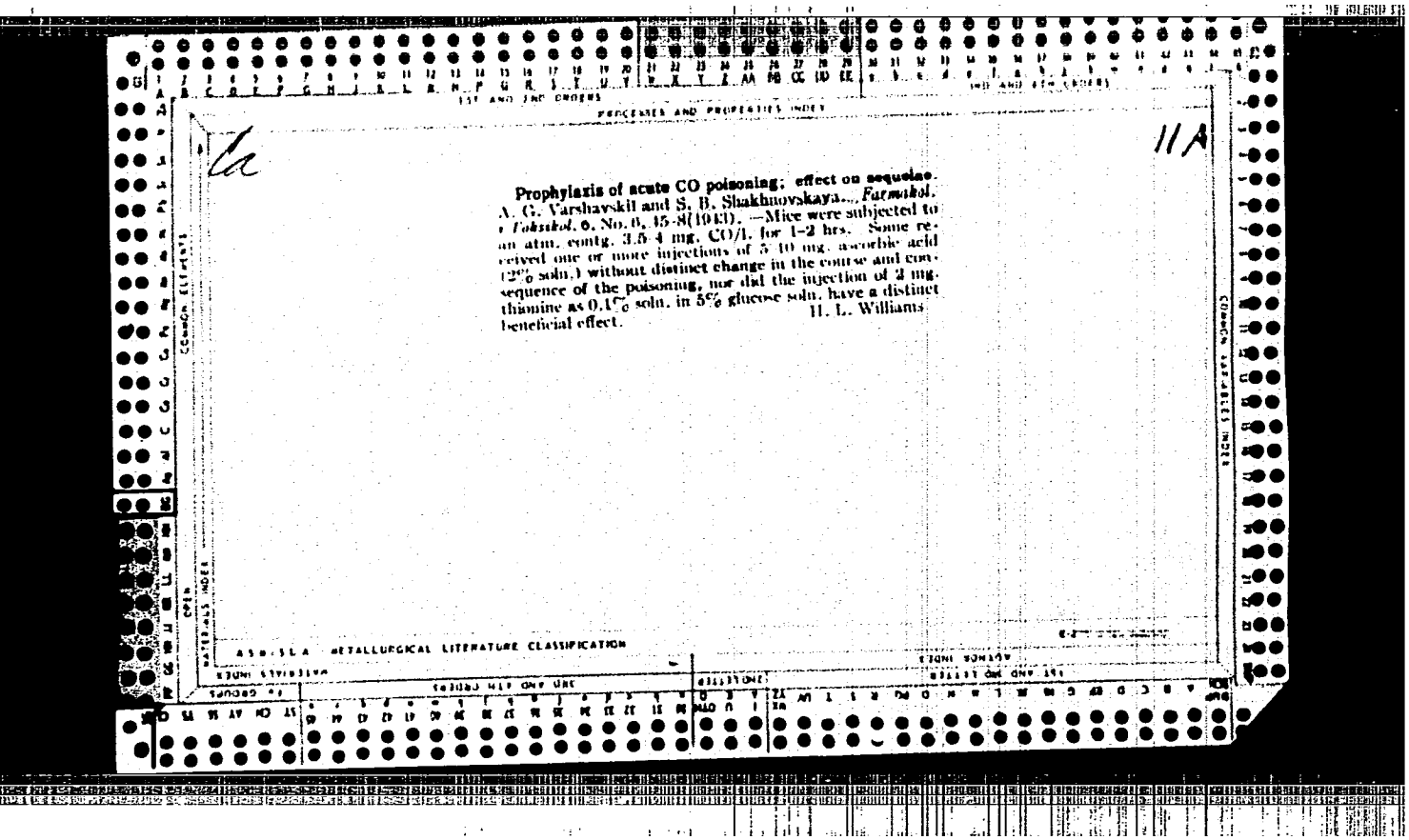
The great democrate and revolutionary. Sov.shakht. 11 no.4:4-5 Ap '62. (MIRA 15:3)

1. Institut marksizma-leninizma pri TSentral'nom komitete Kommunisticheskoy partii Sovetskogo Soyuza.
(Hertzen, Aleksandr Ivanovich, 1812-1870)

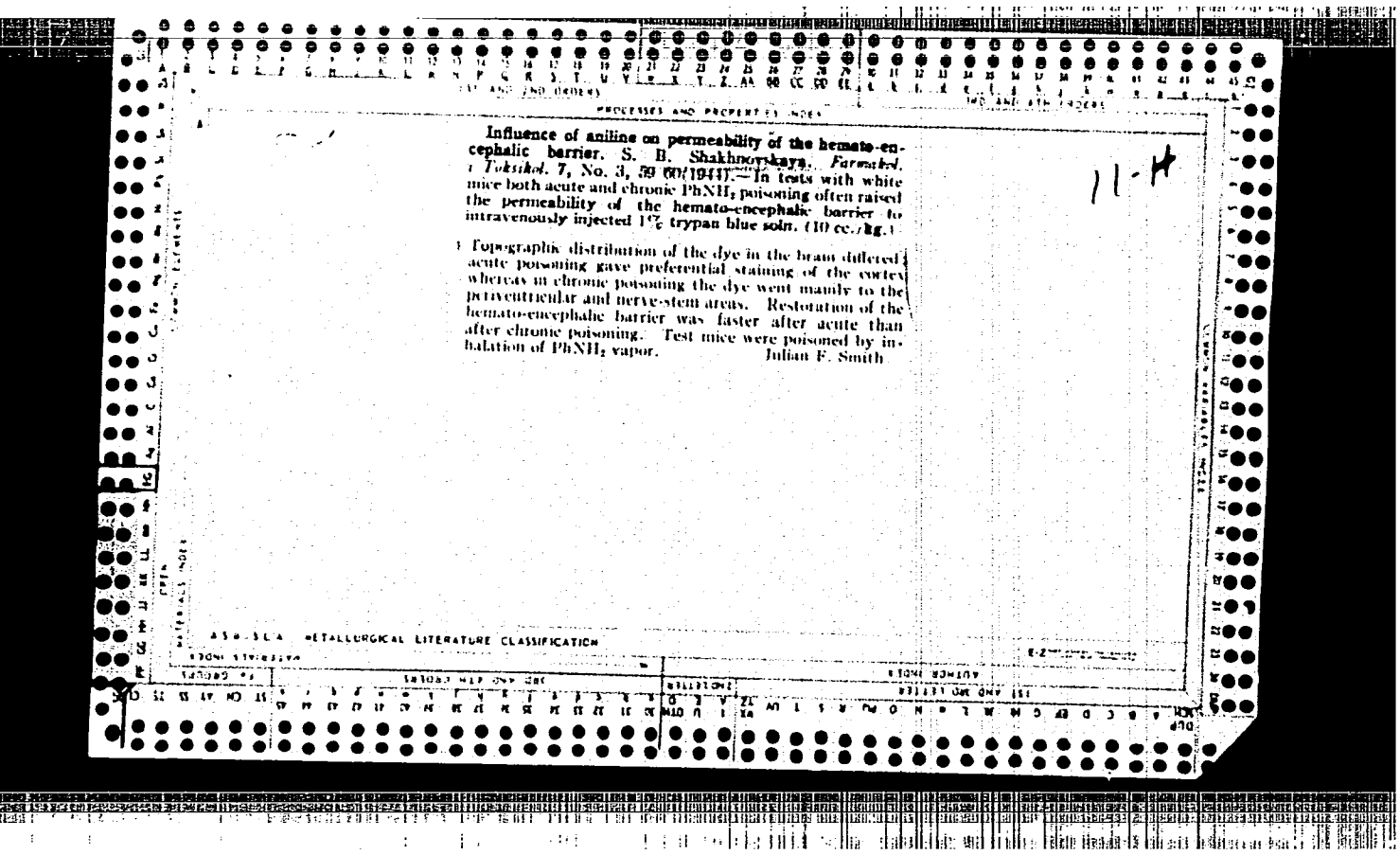
SHAKHNOVSKAYA, S.

Book on means for reducing production costs in Soviet industry ("Production costs and computing problems in Soviet industry." V.A. Bunimovich. Reviewed by S. Shakhnovskaia). Vop. ekon. no. 10:126-130 O '56. (MLRA 9:11)

(Costs, Industrial)



Prophylaxis of acute CO poisoning; effect on sequelae. A. G. Varshavskii and S. B. Shakhnovskaya... *Farmakol. i Toksikol.* 6, No. 6, 45-8(1943). —Mice were subjected to an atm. contg. 3.5-4 mg. CO/l. for 1-2 hrs. Some received one or more injections of 5-10 mg. ascorbic acid (2% soln.) without distinct change in the course and consequence of the poisoning, nor did the injection of 2 mg. thiamine as 0.1% soln. in 5% glucose soln. have a distinct beneficial effect. H. L. Williams

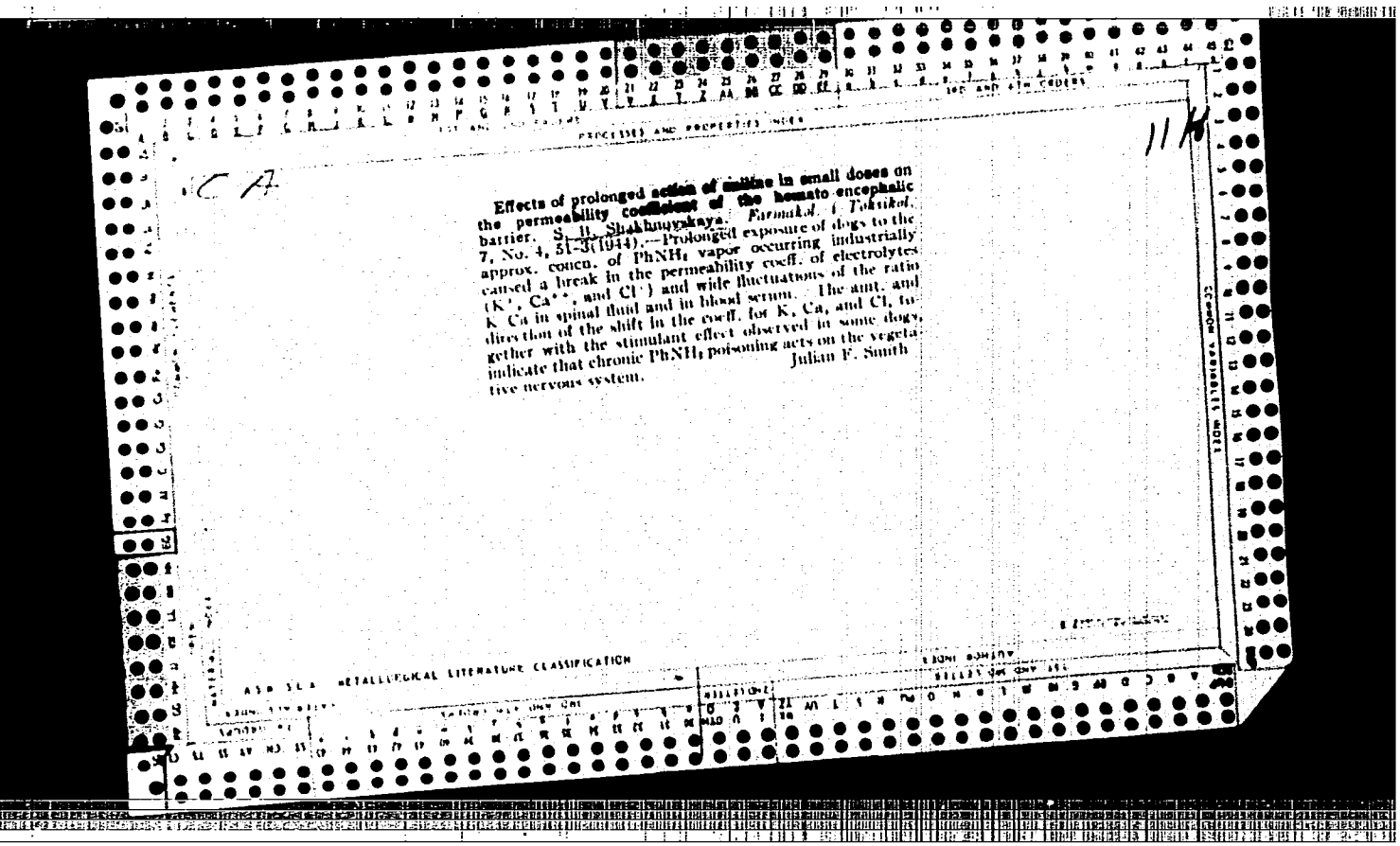


PROCESSES AND PROPERTY INDEX

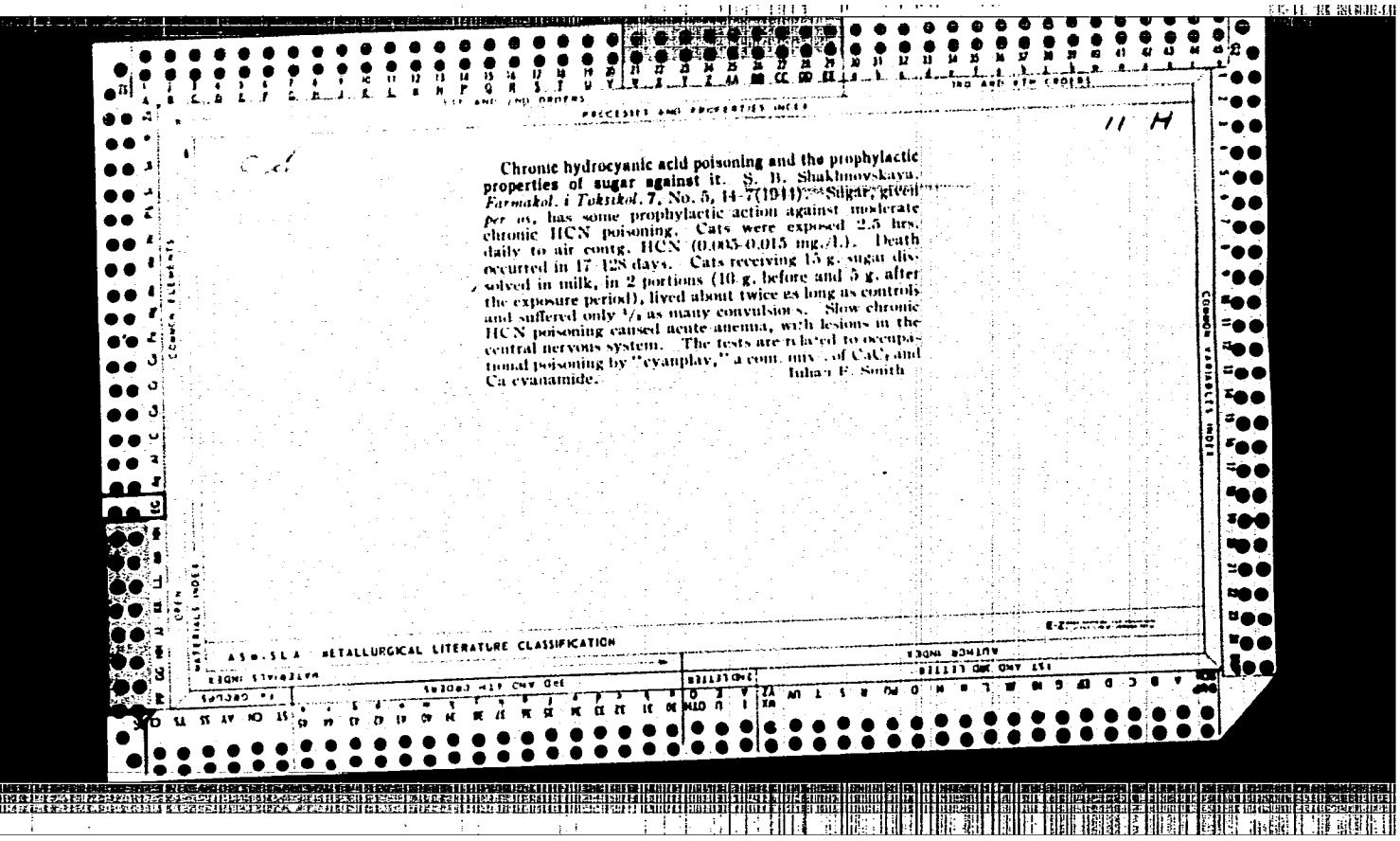
Influence of aniline on permeability of the hemato-encephalic barrier. S. B. Shakhnovskaya. *Farmakol. i Toksikol.* 7, No. 3, 29-30(1944).—In tests with white mice both acute and chronic $PhNH_2$ poisoning often raised the permeability of the hemato-encephalic barrier to intravenously injected 1% trypan blue soln. (10 cc./kg.). Topographic distribution of the dye in the brain differed; acute poisoning gave preferential staining of the cortex, whereas in chronic poisoning the dye went mainly to the periventricular and nerve-stem areas. Restoration of the hemato-encephalic barrier was faster after acute than after chronic poisoning. Test mice were poisoned by inhalation of $PhNH_2$ vapor. Julian F. Smith

11-H

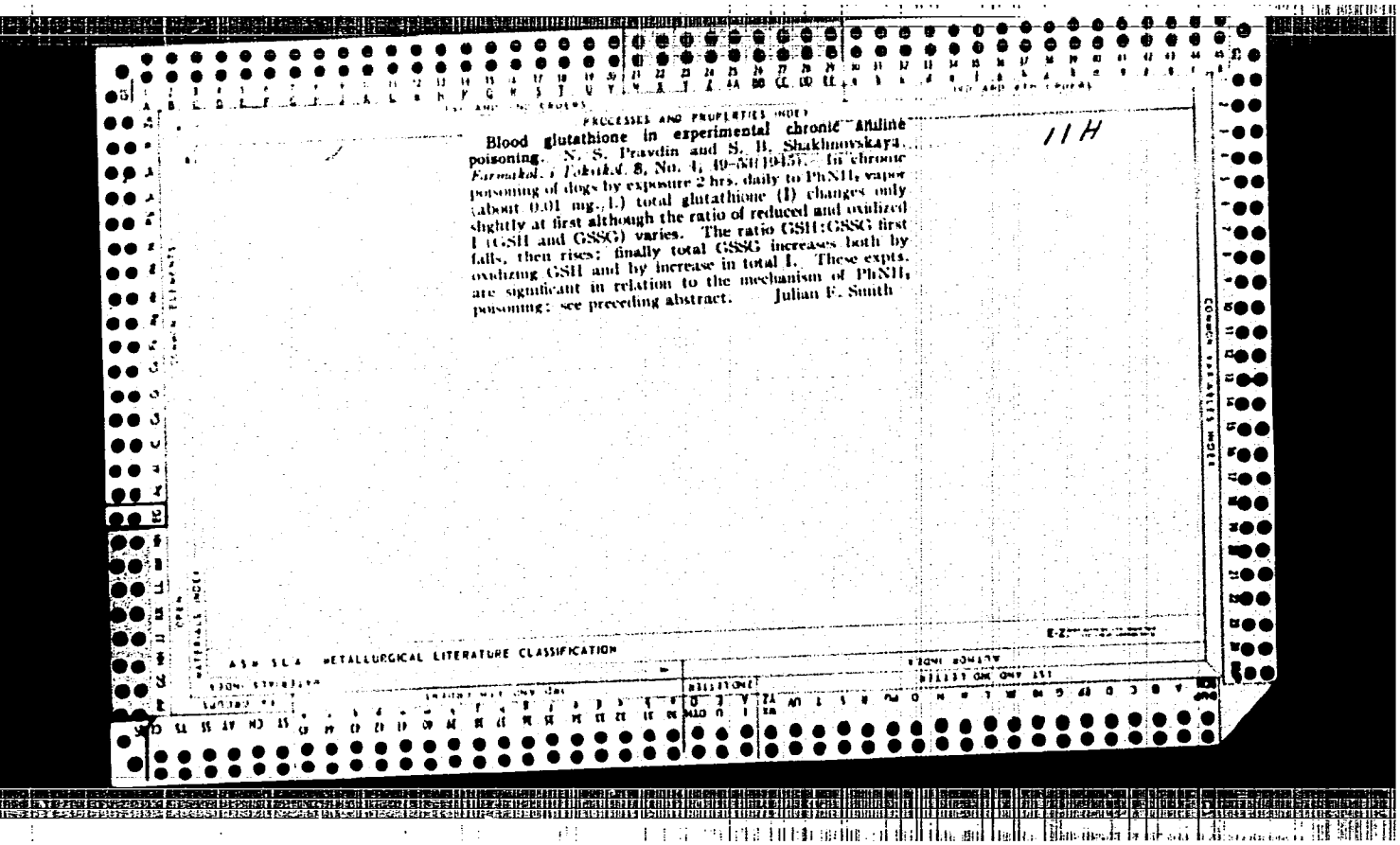
A50-51A METALLURGICAL LITERATURE CLASSIFICATION



Effects of prolonged action of aniline in small doses on the permeability coefficient of the hemato encephalic barrier. S. B. Shakhnuyanya. *Farmakol. i Toksikol.* 7, No. 4, 51–3(1944).—Prolonged exposure of dogs to the approx. concn. of $PhNH_2$ vapor occurring industrially caused a break in the permeability coeff. of electrolytes (K^+, Ca^{++}, and Cl^-) and wide fluctuations of the ratio K Ca in spinal fluid and in blood serum. The amt. and direction of the shift in the coeff. for K, Ca, and Cl, together with the stimulant effect observed in some dogs, indicate that chronic $PhNH_2$ poisoning acts on the vegetative nervous system. Julian F. Smith



Chronic hydrocyanic acid poisoning and the prophylactic properties of sugar against it. S. B. Shakhmovskaya. *Farmakol. i Toksikol.* 7, No. 5, 14-7(1944).—Sugar, given *per os*, has some prophylactic action against moderate chronic HCN poisoning. Cats were exposed 2.5 hrs. daily to air contg. HCN (0.035-0.015 mg./l.). Death occurred in 17-128 days. Cats receiving 15 g. sugar dissolved in milk, in 2 portions (10 g. before and 5 g. after the exposure period), lived about twice as long as controls and suffered only ⅓ as many convulsions. Slow chronic HCN poisoning caused acute anemia, with lesions in the central nervous system. The tests are related to occupational poisoning by "cyanplav," a comm. mixt. of CaC_2 and Ca cyanamide.
Julian F. Smith

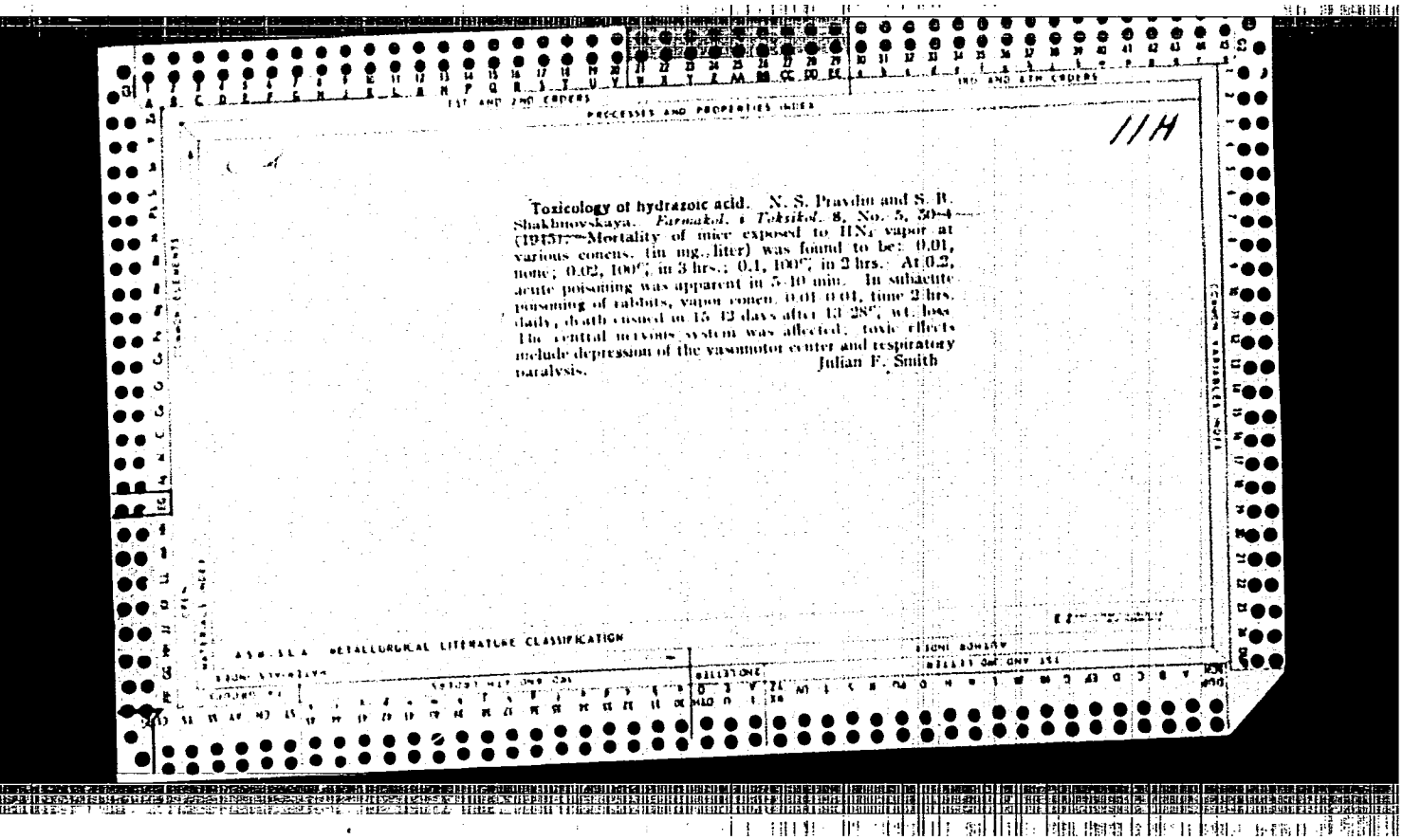


PROCESSES AND PROPERTIES INDEX

Blood glutathione in experimental chronic aniline poisoning. N. S. Pravdin and S. B. Shakhnovskaya. *Farmakol. i Toksikol.* 8, No. 4, 49–53 (1945). In chronic poisoning of dogs by exposure 2 hrs. daily to $PhNH_2$ vapor (about 0.01 mg./l.) total glutathione (I) changes only slightly at first although the ratio of reduced and oxidized I (GSH and GSSG) varies. The ratio GSH:GSSG first falls, then rises; finally total GSSG increases both by oxidizing GSH and by increase in total I. These expts. are significant in relation to the mechanism of $PhNH_2$ poisoning; see preceding abstract. Julian F. Smith

11H

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

11H

Toxicology of hydrazoic acid. N. S. Pravdin and S. B. Shakhnovskaya. *Farmakol. i Toksikol.* 8, No. 5, 50–4 (1945).—Mortality of mice exposed to HN_3 vapor at various concns. (in mg./liter) was found to be: 0.01, none; 0.02, 100%, in 3 hrs.; 0.1, 100%, in 2 hrs. At 0.2, acute poisoning was apparent in 5–10 min. In subacute poisoning of rabbits, vapor concn. 0.01–0.01, time 2 hrs. daily, death ensued in 15–42 days after 13–28%, wt. loss. The central nervous system was affected; toxic effects include depression of the vasomotor center and respiratory paralysis. Julian F. Smith

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SHAKNOVSKAYA, V.F., aspirant

Some peculiarities of the menstrual function in inflammatory gynecological diseases [with summary in English]. Akush. i gin. 33 no.4:79-83 Jl-Ag '57. (MIRA 10:11)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. K.N.Zhmakin) I Moskovskogo ordena Lenina meditsinskogo instituta.
(GYNECOLOGICAL DISEASES, manifest.
menstruation disorders, in inflammatory gin. dis.)
(MENSTRUATION DISORDERS, etiol. and pathogen.
inflammatory gyn.dis.)

SHAKHNOVSKAYA, V. F. Cand Med Sci --(diss) "Certain peculiarities of the menstrual function of women with inflammatory diseases of the internal genital organs." Mos, 1958. 11 pp (1st Mos Order of Lenin Med Inst im I. M. Sechenov), 200 copies (KL, 13-58, 101)

BLOSHANSKIY, Yu.M.; VANINA, L.V.; VYKHLYAYEVA, Yo.M.; ZHMAKIN, Konstantin Nikolayevich, prof.; LOTIS, V.M.; MANUILOVA, I.A.; MOISEYENKO, M.D.; SYAO BI-LYAN' [Hsiao Pi-lien]; STRONGINA, T.N.; TRUYEVTSEVA, G.V.; SHAKHNOVSKAYA, V.F.; GARVEY, N.N., red.; NAVROTSKIY, O.G., tekhn. red.

[Physiology and pathology of the menstrual function] Fiziologiia i patologiia menstrual'noi funktsii. Otv. red. K.N. Zhmakin. Moskva, Pervyi Mosk. med. in-t, 1960. 174 p. (MIRA 14:5)

1. Sotrudniki kafedry akusherstva i ginekologii 1-go Moskovskogo ordena Lenina Meditsinskogo instituta im. I.M. Secherova (for all except Garvey, Navrotskiy).
(MENSTRUATION)

SANTOTSKIY, M.I., doktor med. nauk; BUKHMAN, A.I., kand. med. nauk; SHAKHNOVSKAYA, V.F., kand. med. nauk; GOLUBEVA, I.V.

Pneumogynecography in endocrine diseases. Probl. endok. i gorm. 9 no.5:97-100 S-O'63 (MIRA 16:12)

1. Iz rentgenologicheskogo otdeleniya (zav. M.I.Santotskiy) i ginekologicheskogo otdeleniya (zav. - prof. S.K.Lesnoy) Vsesoyznogo nauchno-issledovatel'skogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A. Vasyukova).

[illegible], G.P., doktor med.nauk, dotsent; SHAKHNOVSKAYA, V.F., kand.med. nauk; GOLUBEVA, I.V.

Stein-Leventhal syndrome. Akush. i gin. 40 no.3:59-65 My-Je '64. (MIRA 18:6)

1. Ginekologicheskoye otdeleniye Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. -- prof. Ye.A.Vasyukova), Moskva.

KALININ, A.P.; SHAKHNOVSKAYA, V.F.; ZARETSKIY, M.M.

Pregnancy and labor in Itsenko-Cushing's disease. Probl. endok. i gorm. 11 no.6:13-17 N-D '65. (MIRA 18:12)

1. Terapevticheskoye otdeleniye (zav. - kand. med. nauk A.G.Vasil'yeva) i khirurgicheskoye otdeleniye (zav. prof. O.V.Nikolayev) Instituta eksperimental'noy endokrinologii AMN SSSR, Moskva.

SHAKHNOVSKAYA, Ye. I.

Craniostenosis. Sovet. med. 17 no.11:17-19 Dec 1953.
(CIML 25:5)

1. Of the Department of Medical Work Certification (Head -- Prof. N.K. Bogolepov), Central Institute for the Advanced Training of Physicians (Director --V.P. Lebedeva).

SHAKHNOVSKAYA, Ye.I.

Craniostenosis. Sov.med. 17 no.12:17-19 D '53. (MLRA 6:12)

1. Iz kafedry vrachebno-trudovoy ekspertizy (zaveduyushchiy - professor N.K.Bogolepov) Tsentral'nogo instituta usovershenstvovaniya vrachey (direktor V.P.Lebedeva).
(Skull--Abnormities and deformities)

SHAKHNOVSKAYA, Ye.I.

Neurological changes in defects of the distal part of the extremities. Zhur.nevr. i psikh. Supplement:28 '57. (MIRA 11:1)

1. Gor'kovskaya oblastnaya Vrachebno-trudovaya ekspertnaya komissiya.
(AMPUTATION STUMP--INNERVATION)

POLOZOVA, R.A., SHAKHNOVSKAYA, Ye.I.

Cerebral form of obliterating endarteritis; neurological syndrome.
Sov.med. 22 no.7:83-89 Jl '58 (MIRA 11:10)

1. Iz Gor'kovskogo nervorlogicheskogo gospitalya invalidov Otechestvennoy voyny (nachal'nik A.D. Yagovkina).
(ARTERIOSCLEROSIS, OBLITERANS, pathol.
brain blood vessels (Rus))
(ARTERIES, CAROTID, dis.
arteriosclerosis obliterans (Rus))

SHAKHNOVSKAYA, Ye.I.

Use of low-frequency pulse current (electronarcosis) in the over-all treatment of phantom pains. Vop. kur., fizioter. i lech. fiz. kul't. 25 no.2:109-113 Mr-Ap '60. (MIRA 13:9)

1. Iz Gor'kovskogo nevrologicheskogo gospitalya dlya invalidov Otechestvennoy voyny (nachal'nik A.D. Yagovkina).
(ELECTRIC ANESTHESIA) (AMPUTEES--PHYCHOLOGY)

1. SHAKHNOVSKIY, L. N.

2. USSR (600)

4. Pneumatic-Tube Transportation

7. Removal of dust and trash from dry shredded makhorka when using pneumatic transportation.
Tabak 13, No. 6, 1952

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, Unclassified.

SHAKHNOVSKIY, L.N.

Free nicotine. L. N. Shakhnovskii. *Tabak* 14, No. 5, 20–9(1953).—To det. free nicotine, steep 10 g. of tobacco material for 16–18 hrs. at room temp. in 100 ml. of refined kerosine. Titrate 50 ml. of the kerosine layer with 0.1 *N* H_2SO_4, with 10 ml. of litmus in 50% alc. as indicator. For shredded makhorka leaf of Pechleiz 39/34 variety, the percentage of the nicotine extd. and the moisture content were: 2.5, 10; 10, 12.5; 15, 15; 18 (max.), 16; 16, 20; 12.5, 30; 10, 38; 7.5, 50; and 4, 75. Four other samples of shredded makhorka had maxs. over the range 18–20% free nicotine at 10% moisture content. For shredded stems the percentage free nicotine and moisture content for makhorka LN 19/30 were 1, 1; 5, 10; 12, 12; 15, 15; 21 (max.), 16; 12.5, 25; 5, 40; 2.5, 60; and 1, 70. The max. on 4 other samples were in the range 15–25% at 15% moisture content. For a finished Cherkas tobacco product the free nicotine and percent moisture were: 2, 8; 15, 12; 20, 14; 25, 15; 20 (max.), 16; 20, 22; 24, 32; 20, 55; and 16, 75. Shredded makhorka leaf contg. 1.86% nicotine and 27.2% moisture when extd. with 4 different solvents gave the following free-nicotine values: petr. ether, 16.0; kerosine, 20.4; benzene, 52.0, and dichloroethane, 55%. Makhorka MR-13 contg. 4.19% nicotine when extd. with kerosine gave the following free nicotine values at the specified moisture contents: 8, 8; 20 (max.), 16; 20, 30; 10, 45; and 5, 75. For benzene the values were: 20, 8; 57 (max.), 16; 43, 30; and 25, 75. Increase in temp. raised free nicotine with kerosine as solvent. Extns. were also carried out with 200 ml. of benzene on 100 ml. of aq. solns. contg. 90 mg. nicotine and equiv. amts. of several acids. The acid, the pH of soln. before extn., and mg. of nicotine extd. were: SO_4^{--}, 5.58, none; formate, 6.43, 12; oxalate, 6.50, 14; acetate, 6.74, 20; malate, 6.85, 22; butyrate, 6.86, 21; and citrate, 7.11, 42. In view of results of the present work, it is proposed that nicotine in tobacco is always in combined form. Free nicotine obtained by steam distn. or by extn. with an org. solvent is attributed to hydrolysis of nicotine salts. It is recommended that the term free nicotine be dropped and hydrolyzed nicotine be used instead. Murray Senkus

SHAKHNOVSKIY, L.N.

USSR

Effect of ammonia on the sensory strength of tobacco products. L. N. Shakhnovskii (Technol.-Structural Research Dept., Main Tobacco Admin., Moscow). *Tabak* 15, No. 3, 40-4(1951).—Shredded makhorka was treated with NH_3, $(NH_4)_2CO_3$, and NH_4HCO_3 to det. their effect on free nicotine (*C.A.* 48, 9221*h*). Moles NH_3 added per mole nicotine and percentage of free nicotine for treated sample were: Usmansk makhorka contg. 1.41% nicotine, treated with NH_3: control, 0.34; 1, 0.79; 10, 1.10; 25, 1.10; 50, 1.13; Usmansk makhorka, contg. 1.60% nicotine, treated with $(NH_4)_2CO_3$: control, 0.40; 1, 0.87; 6, 1.23; 12, 1.27; Morshansk makhorka, contg. 1.41% nicotine, treated with NH_4HCO_3: control, 0.19; 1, 0.19; 5, 0.18; 10, 0.18. It is suggested that NH_3 and $(NH_4)_2CO_3$ produce similar increases in free nicotine during smoking and thereby contribute to sensory strength. The effect of NH_3 or $(NH_4)_2CO_3$ in mild tobaccos is offset by conversion to NH_4HCO_3 or to salts of volatile org. acids. Murray Senkus

SHAKHNOVSKIY, M. A.

USSR/Metals Jul/Aug 1947
Furnaces, Metallurgical
Copper

"Increasing the Productivity of Reverberatory Furnaces for Smelting Copper," M. A. Shakhnovskiy, Candidate in Technical Sciences, GiproTsvetMet, 7 pp

"Tsvetnyye Metally" No 4

Author states that it is possible to increase the output of the Noran furnace from 42 to 54 million cal/hour, and to decrease the expenditure of fuel 20 - 25 percent. The circulatory system for coal dust is greatly simplified, adding to the cheapness of this equipment. Tables, graphs, and illustrations of furnace layouts. 2476

SHAKHNOVSKIY, M.A., kandidat tekhnicheskikh nauk.

What are the no-load losses of reverberatory copper-smelting furnaces? TSvet. met. 26 no.2:76-77 Mr-Ap '53. (MLRA 10:9)
(Smelting furnaces)

SHAKHNOVSKIY, M.A., kand.tekhn.nauk; OSTRONOV, M.Kh., inzhener.

Some problems in reverberatory furnace smelting of copper.
TSvet.met. 27 no.5:40-46 S-O '54. (MIRA 10:10)

1. Giprotsvetmet.
(Copper--Metallurgy)

136-9-9/14

AUTHOR: Shalkhnovskiy, M.A., Candidate of Technical Sciences.

TITLE: Smelting copper sulphide concentrates with oxygen blast. (Plavka mednykh sul'fidnykh kontsentratov na kislorodnom dut'ye).

PERIODICAL: Tsvetnyye Metally, 1957, No.9, pp. 49-57 (USSR).

ABSTRACT: The author describes and discusses foreign practice, especially that at Copper Cliffs, on smelting copper concentrates with oxygen. He considers the possible application of this method to Soviet copper-sulphide concentrates and decides in favour of this. An editorial note states that this decision is incorrect for Ural concentrates which, because of favourable heat conditions, can be flash smelted without an oxygen blast. The note recommends further technical-economic calculations before making a decision.
There are 5 figures, 3 tables and 9 references - 8 Russian, 1 English.

AVAILABLE: Library of Congress.

Card 1/1 1. Copper-Smelting 2. Oxygen-Blast-Application

SOV/124-57-4-4972

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 146 (USSR)

AUTHOR: Fradlin, B. N., Shakhnovskiy, S. M.

TITLE: On the Stressed State of Initially-distorted Slender Rods (O naprya-zhennom sostoyanii pervonachal'no iskrivlennykh tonkikh sterzhney)

PERIODICAL: Izv. Kiyevsk. politekhn. in-ta, 1955, Vol 18, pp 42-52

ABSTRACT: On the basis of the results of the design calculation of a paddle wheel as a whole, the authors investigate the stresses in struts which arise in the strut junction constraints. The theory of the equilibrium of slender elastic rods serves as a basis for the calculations. The paper shows the considerable effect of the distortion of the struts on the local stress distribution. Such a localized stress rise may be one of the reasons for the failure of struts.

N. A. Kil'chevskiy

Card 1/1

AUTHORS: Fradlin, B.N. and Shakhnovskiy, S.M SOV-21-58-4-6/29

TITLE: On Obtaining Integro-Differential Equations for the Equilibrium of Inclined Shells (O sostavlenii integro-differentsial'nykh uravneniy ravnovesiya pologikh obolochek)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 4, pp 381-385 (USSR)

ABSTRACT: Applying N.A. Kil'chevskiy's method [Ref. 1,2] the authors reduce the problem of the equilibrium of a gently inclined shell, subjected to an arbitrary load, to a system of functional equations which looks as follows

$$U_{(i)_\alpha}(M,N) = V_{(i)_\alpha}(M,N) - \iint_{(s)} \left[K^j_{(\alpha)}(Q,M) U_{(i)j}(Q,N) + L^j_{(\alpha)}(Q,M) \omega_{(i)j}(Q,N) \right] dS_Q - A_{(i)\alpha}(M,N) + A'_{(i)\alpha}(M,N) \qquad (1)$$

where $\omega_{(i)\alpha}$ are components of the vector of an elementary turn around point M induced by a corresponding unitary force applied to point N; $A_{(i)\alpha}(M,N)$ is the work of auxiliary efforts $T^\sigma_\mu(V_{(i)\alpha})$ and moments $M^\sigma_\mu(V_{(i)\alpha})$ applied to the periphery of the middle surface of the shell, on the main displacements; $A'_{(i)\alpha}(M,N)$ is the work of main efforts

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T_{μ}^{σ} $(U_{(i)\alpha}$) and moments M_{μ}^{σ} $(U_{(i)\alpha}$) applied to the periphery of the middle surface of the shell, on the auxiliary displacements; $U_{(i)\alpha}$ can be considered as components of the Green tensor for a shell, on the middle surface of which an arbitrary load X^{β} acts, and dS_Q is an element of the surface in the vicinity of point Q. The authors derive formulae for the nuclei $K^{j}_{(\alpha)}$ and $L^{j}_{(\alpha)}$ and for the operators $A_{(i)\alpha}$ and $A'_{(i)\alpha}$, making use of the corresponding equations in V.Z. Vlasov's technical theory of inclined shells [Ref. 3] and in A. Lyav's paper [Ref. 4] As an example, the authors

On Obtaining Integro-Differential Equations for the Equilibrium of Inclined Shells

consider the computation of an inclined hinged shell (whose projection on a plane is rectangular) acted upon by an evenly distributed load. There are 5 Soviet references.

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiyev Polytechnic Institute).

PRESENTED: By Member of the AS UkrSSR, G.N. Savin

SUBMITTED: July 10, 1957

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Shells--Mathematical analysis 2. Differential equations --Applications 3. Operators (Mathematics)--Applications 4. Shells--Stability

SOV/179-59-1-24/36

AUTHORS: Fradlin, B. N. and Shakhnovskiy, S. M. (Kiyev)

TITLE: Functional Equilibrium Equations of Sloping Shells (O funktsional'nykh uravneniyakh ravnovesiya pologikh obolochek)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 1, pp 144-149 (USSR)

ABSTRACT: Using the method proposed by Kil'chevskiy (Refs.1 and 2) the problem of equilibrium of a sloping shell is reduced to the investigation of a system of functional equations. There are 6 Soviet references.

SUBMITTED: June 6, 1958.

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E081/E141

AUTHORS: Fradlin, E.N., and Shakhnovskiy, S.M. (Kiyev)

TITLE: The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1959, Nr 6, pp 132-134 (USSR)

ABSTRACT: In conformity with the method of N.A. Kil'chevskiy, the integral equilibrium equation for a sloping shell of rectangular plan and with hinged support round the contour has the form (1, 2)

$$u_{(i)\beta}(M, N) = v_{(i)\beta}(M, N) - \int_0^a \int_0^b K_{(\beta)}{}^{j}(Q, M)\, u_{(i)j}(Q, N)\, dx_Q\, dy_Q \qquad (1)$$

where, here and subsequently, $i, \beta = 1,2,3$; $\alpha = 1, 2$; $j = 1,2,3$ and performs summation; $m, n = 1,2$.

If we choose an auxiliary system of displaced points on a hinged - supported plate, coinciding with the plan of the shell, arising under the action of unit forces directed parallel with the coordinate axes, we find

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The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

$$v_{(i)\beta}(P, R) = \sum_{m,n} A_{mn}^{(i)\beta} Z_{mn}^{\beta}(P) Z_{mn}^{i}(R) \qquad (2)$$

where $Z_{mn}^{1}(R) = \cos \frac{m\pi x_R}{a} \sin \frac{n\pi y_R}{b}$,

$Z_{mn}^{2}(R) = \sin \frac{m\pi x_R}{a} \cos \frac{n\pi y_R}{b}$,

$Z_{mn}^{3}(R) = \sin \frac{n\pi x_R}{a} \sin \frac{n\pi y_R}{b}$,

$A_{mn}^{(1)1} = \frac{4\varepsilon}{\pi^2 Eh} \frac{\gamma_{mn}}{\omega_{mn}^2}$, $A_{mn}^{(2)2} = \frac{4\varepsilon}{\pi^2 Eh} \frac{\delta_{mn}}{\omega_{mn}^2}$,

$A_{mn}^{(3)3} = \frac{48(1-\nu^2)\varepsilon^2}{\pi^4 Eh^3} \frac{1}{\omega_{mn}^2}$,

Card 2/11 $A_{mn}^{(1)2} = A_{mn}^{(2)1} = -\frac{4(1+\nu)^2 \varepsilon^2}{\pi^2 Eh} \frac{mn}{\omega_{mn}^2}$,

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The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

$$A_{mn}^{(\alpha)3} = A_{mn}^{(3)\alpha} = 0 \qquad (\varepsilon = a/b),$$

$$\gamma_{mn} = (1 - \nu^2)\, m^2 + 2(1 + \nu)\varepsilon^2 n^2,$$

$$\delta_{mn} = 2(1+\nu)m^2 + (1 - \nu^2)\varepsilon^2 n^2, \qquad \omega_{mn} = m^2 + \varepsilon^2 n^2 .$$

Without going into details, all operations used below on the series (2) follow either immediately or with the aid of the theory of generalised functions. This representation of tangential displacements was used by N.I. Remizov in the candidate dissertation "Integral Equations of Equilibrium of Thin Elastic Cylindrical Shells" Kiyev Polytechnical Institute 1958.

Using the differential equilibrium equations of a sloping shell (3) to determine the kernel $K_{(\beta)}^{j}$, we obtain (2)

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$$K_{(\alpha)}^{3} = \frac{Ehk_1}{1 - \nu^2}\left[\rho_1 \frac{\partial w(\alpha)1}{\partial x} + \rho_1 \frac{\partial v(\alpha)2}{\partial y}\right],$$

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The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

$$K_{(3)}{}^{1} = -\frac{Ehk_1\rho_1}{1-\nu^2}\frac{\partial v(3)3}{\partial x},\quad K_{(3)}{}^{2} = -\frac{Ehk_1\rho_2}{1-\nu^2}\frac{\partial v(3)3}{\partial y},$$

$$K_{(3)}{}^{3} = \frac{Ehk_1{}^2\rho_3}{1-\nu^2}v(3)3,\qquad K_{(\alpha)}{}^{1} = K_{(\alpha)}{}^{2} = 0$$

where $\rho_1 = 1 + \nu\varkappa$; $\rho_2 = \nu + \varkappa$; $\rho_3 = 1 + 2\nu\varkappa + \varkappa^2$,

$\varkappa = k_2/k_1$

From (2) we have

$$K_{(\beta)}{}^{j}(Q, M) = \sum_{m,\,n} B_{mn}{}^{(\beta)j}\, Z_{mn}{}^{j}(Q)\, Z_{mn}{}^{\beta}(M) \qquad (3)$$

where

$$B_{mn}{}^{(1)3} = -\frac{4\varepsilon k_1}{\pi a}\frac{m\alpha_{mn}}{\gamma_{mn}{}^2},\quad B_{mn}{}^{(2)3} = \frac{4\varepsilon^2 k_1}{\pi a}\frac{n\beta_{mn}}{\gamma_{mn}{}^2},$$

$$B_{mn}{}^{(3)1} = -\frac{48\varepsilon^2\rho_1 k_1 a}{\pi^3 h^2}\frac{m}{\gamma_{mn}{}^2},\quad B_{mn}{}^{(3)2} = -\frac{48\varepsilon^2\rho_2 k_1 a}{\pi^3 h^2}\frac{n}{\gamma_{mn}{}^2}$$

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The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

$$B_{mn}^{(3)3} = \frac{48\varepsilon k_1 o_3 a}{\pi^4 \lambda_n^2} \frac{1}{\omega_{mn}^2}, \quad B_{mn}^{(\alpha)1} = B^{(\alpha)2} = 0,$$

$$\alpha_{mn} = o_1 m^2 - (\varkappa - 1 - 2)\varepsilon^2 n^2, \quad \beta_{mn} = [1 - (\varkappa+2)\varkappa]m^2 - o_2 \varepsilon^2 n^2$$

The solution of the system of integral equations (1) is sought in the form

$$v_{(i)\beta}(R,N) = V_{(i)\beta}(R,N) + \sum_{m,\,n} C_{mn}^{(i)\beta} Z_{mn}^{\beta}(R) Z_{mn}^{i}(N) \quad (4)$$

Substituting (4) in (1) and comparing coefficients of the products

$$Z_{mn}^{\beta}(M)\ Z_{mn}^{i}(N)$$

in both parts of the corresponding relationships, we obtain

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$$C_{mn}^{(i)\beta} = -\frac{a^2}{4\varepsilon} \sum_j B_{mn}^{(\beta)j} \left[A_{mn}^{(i)j} + C_{mn}^{(i)j} \right]$$

The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

Hence

$$C_{mn}^{(i)\alpha} = -\frac{a^2 B_{mn}(\alpha)3\,[4\varepsilon A_{mn}^{(i)3} - a^2\delta_{mn}^{(i)}]}{16\varepsilon^2 + a^2\varepsilon_{mn}},$$

$$C_{mn}^{(i)3} = -\frac{a^2\,[4\varepsilon\delta_{mn}^{(i)} + \varepsilon_{mn}A_{mn}^{(i)3}]}{16\varepsilon^2 + a^2\varepsilon_{mn}} \qquad (5)$$

where

$$\left.\begin{aligned}\varepsilon_{mn} &= 4\varepsilon B_{mn}^{(3)3} - a^2\,[B_{mn}^{(3)1}B_{mn}^{(1)3} + B_{mn}^{(3)2}B_{mn}^{(2)3}]\\ \delta_{mn}^{(i)} &= A_{mn}^{(i)1}B_{mn}^{(3)1} + A_{mn}^{(i)2}B_{mn}^{(3)2}\end{aligned}\right\} \qquad (6)$$

Calculation by formula (5) gives

$$C_{mn}^{(1)1} = \frac{4\varepsilon C}{\pi^2 Eh}\,\frac{m^2\alpha_{mn}^2}{\alpha_{mn}^2\,\Omega_{mn}},\quad C_{mn}^{(2)2} = \frac{4\varepsilon^2 C}{\pi^2 Eh}\,\frac{n^2\beta_{mn}^2}{\beta_{mn}^2\,\Omega_{mn}}$$

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$$C_{mn}^{(3)3} = -\frac{4\varepsilon C^2}{k_1^2 a^2 E_1 h}\,\frac{\theta_{mn}^2}{\theta_{mn}^2\,\Omega_{mn}},$$

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$$C_{mn}(1)2 = C_{mn}(2)1 = -\frac{4\varepsilon^2 C}{\pi^2 Eh}\frac{mn\alpha_{mn}\beta_{mn}}{\omega_{mn}^2 \gamma_{mn}}$$

$$C_{mn}(1)3 = C_{mn}(3)1 = \frac{4\varepsilon C}{\pi Ehk_1 a}\frac{m\alpha_{mn}}{\gamma_{mn}},$$

$$C_{mn}(2)3 = C_{mn}(3)2 = -\frac{4\varepsilon^2 C}{\pi Ehk_1 a}\frac{n\beta_{mn}}{\omega_{mn}}$$

where

$$\alpha_{mn} = \lambda m^2 + \varepsilon^2 n^2, \quad \omega_{mn} = \gamma_{mn}^4 + C\alpha_{mn}^2,$$

$$C = \frac{12(1-\nu^2)a^4 k_1^2}{\pi^4 h^2}.$$

On the basis of the relations (4) and (2) the required solution of the system of equations (1) can be put in the form

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$$u_{(i)\beta}(M,N) = \sum_{m,n} D_{mn}^{(i)\beta} Z_{mn}^{\beta}(M) Z_{mn}^{i}(N) \qquad (7)$$

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E081/E141

The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

where

$$D_{mn}^{(1)1} = \frac{4\varepsilon}{\pi^2 Eh}\frac{1}{\omega_{mn}^2}\left(\gamma_{mn} + \frac{Cm^2\alpha_{mn}^2}{\Omega_{mn}}\right),$$

$$D_{mn}^{(1)3} = D_{mn}^{(3)1} = \frac{4\varepsilon C}{\pi Ehk_1 a}\frac{m\alpha_{mn}}{\Omega_{mn}}$$

$$D_{mn}^{(2)2} = \frac{4\varepsilon}{\pi^2 Eh}\frac{1}{\omega_{mn}^2}\left(\delta_{mn} + \frac{Cn^2\beta_{mn}^2}{\Omega_{mn}}\right),$$

$$D_{mn}^{(2)3} = D_{mn}^{(3)2} = -\frac{4\varepsilon^2 C}{\pi Ehk_1 a}\frac{n\beta_{mn}}{\Omega_{mn}}$$

$$D_{mn}^{(3)3} = \frac{4\varepsilon}{\pi^2 Eh}\frac{C}{k_1^2 a^2}\frac{1}{\omega_{mn}^2}\left(1 - \frac{C\theta_{mn}^2}{\Omega_{mn}}\right)$$

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$$D_{mn}^{(1)2} = D_{mn}^{(2)1} = -\frac{4\varepsilon^2}{Eh}\frac{mn}{\omega_{mn}^2}(1+\nu)^2 + \frac{C\alpha_{mn}\beta_{mn}}{\Omega_{mn}}$$

In this way all components of Green's tensor are obtained for the equilibrium problem of a rectangular plan sloping

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shell with hinged support around the contour. This solution coincides with the known particular solutions of V.Z. Vlasov (3) (in the case of unit normal load) and M. Mishonov (4) (in the case where unit forces are directed along the tangent to the middle surface of the shell). The displacements of points in the middle surface of the shell under the action of an arbitrary load $X^1(N)$ are found from the formula

$$u_\beta(M) = \int_0^a \int_0^b X^1(N)\, u_{(i)\beta}(M, N)\, dx_N dy_N \qquad (8)$$

In particular, for the problem of equilibrium of a shell under the action of a uniformly distributed normal load q, formula (8) gives

$$u_\beta(M) = \frac{4a^2 q}{\pi^2 \varepsilon} \sum_{m,n=1,3,5\ldots}^{\infty} \frac{D_{mn}^{(3)\beta}}{mn} Z_{mn}^{\beta}(M)$$

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or

The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

$$u_1(M) = \frac{qa^4}{Eh^3} \frac{192\,(1-\nu^2)k_1 a}{\pi^7} \sum_{m,n=1,3,5\ldots}^{\infty} \frac{\alpha_{mn}}{n\ \ mn} z_{mn}^{1}(M)$$

$$u_2(M) = -\frac{qa^4}{Eh^3} \frac{192(1-\nu^2)\varepsilon k_1 a}{\pi^7} \sum_{m,n=1,3,5\ldots}^{\infty} \frac{\beta_{mn}}{m\,\omega_{mn}} z_{mn}^{2}(M)$$

$$u_3(M) = \frac{qa^4}{Eh^3} \frac{192(1-\nu^2)}{\pi^6} \sum_{m,n=1,3,5\ldots}^{\infty} \frac{\alpha_{mn}^2}{mn\,\omega_{mn}} z_{mn}^{3}(M)$$

The equation for the deflection may be written

$$u_3(M) = \frac{qa^4}{Eh^3} \frac{192(1-\nu^2)}{\pi^6} \sum_{m,\,n=1,3,5,\ldots}^{\infty} \frac{1}{mn\omega_{mn}^2} \left(1 - \frac{c\theta_{mn}^2}{\omega_{mn}}\right) z_{mn}^{3}(M) \qquad (9)$$

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which can be shown to coincide with the solution of

The Determination of Green's Tensor in Equilibrium Problems of a Sloping Shell

S.A. Ambartsumyan (5). In our paper (2) we did not take tangential displacements into account, and the approximate expression for the deflection which we obtained naturally differs from Eq (9).
This is a complete translation.

SUBMITTED: April 20, 1959

Literature references:

1) Kil'chevskiy, M.O. Approximate method of calculating displacements in cylindrical shells. Zbirnik prats' instituty matem. AN Ukr.SSR Nr 8, 1946.
2) Fradlin, B.N., Shakhnovskiy, S.M. Functional equilibrium equations of sloping shells. Izv.AN SSSR OTN (Mekhanika i mashinostroyeniye), Nr 1, 1959.
3) Vlasov, V.Z. General theory of Shells. GITTL, 1949.
4) Mishonov, M. Theory of Sloping Shells, Prikladnaya Matematika i Mekhanika, Vol 22, Part 5, 1958.
5) Ambartsumyan, S.A. The Calculation of Sloping Shells. PMM Vol 11, Part 5, 1947.

Card 11/11

SHAKHOV, A.

84-11-23/36

AUTHOR: Shakhov, A., Chief of a Repair Establishment
Vaynshteyn, G., Chief of the Design Department of the Technical Control Bureau of the Establishment

TITLE: Along the Path of Technical Progress (Po puti tekhnicheskogo progressa)

PERIODICAL: Grazhdanskaya aviatsiya, 1957, Nr 11, pp. 28-31 (USSR)

ABSTRACT: The process of introduction of the flow method of work in an exemplary repair establishment and the problems solved are described. The first aircraft repaired by the new method was delivered in 1956. The output of the establishment increased by 12 percent. The production capacity planned for the establishment has been exceeded 1.5 times. The average repair time per aircraft was shortened by 15 percent. The output rate was stabilized over the monthly periods. During 1956, 168 different innovations and improvements have been introduced saving 594,000 rubles. During the 9 months of 1957, 140 proposals have been submitted, promising an economy of about a million rubles a year. The effectiveness of invidual

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Along the Path of Technical Progress (Cont.) 84-11-23/36

improvements in terms of achieved savings, has grown, on the average, as follows: in 1954 - 1954 rubles, in 1955 - 2,140, and in 1956 - 3,100 rubles. Much attention has been paid to on-the-job training of specialists, especially the young. There are schools of advanced work methods in all shops, listing about 200 young workers. There is a school for qualified foremen lacking theoretical knowledge, with 34 students. The entire personnel has 2-hour classes in specialized groups every Tuesday, the work hours being extended correspondingly. First grade status was awarded to 150 workers; 569 have been upgraded during the last 3 years. Serial overhaul of the Mi-4 helicopter was started in 1956, and that of the Mi-1 was organized during 1957. By October, 1957, the repair of the ASh-82-V engine was mastered. Experimental work on the repair of jet engines of the Tu-104 airliner is going on. 2 photographs and 3 sets of diagrams accompany the text.

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Card 2/2

KOMAROVA, I.; MOLCHANOV, B. (Murmanskaya oblast'); SHAKHOV, A., shofer (Pestovo, Novgorodskaya oblast'); KUBYSHEV, V. (Kirovskaya oblast')

Readers' letters. Pozh.delo 8 no.4:31 Ap '62. (MIRA 15:4)

1. Starshiy inspektor pozharnoy chasti, Kazan' (for Komarova).
(Fire prevention)

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11(1)

Some physical chemical properties of the cell sap of halophytes. A. A. Shakhov and E. S. Kachinskaya. *Doklady Akad. Nauk S.S.S.R.* 58, 1817–20(1947); *Chem. Zentr.* 1948, II, 209.—*Salsola* and *Salicornia herbacea* were grown on a substrate contg. 4 g. $Ca(NO_3)_2$ and 1 g. each of KNO_3, KH_2PO_4, and $MgSO_4$ to 8 kg. of sand. During the first 15 days NaCl was added so that the salting amounted to 0.5 and 2% for *Salsola* and 1 and 2.5% for *Salicornia*. *Atriplex verrucifera* and *Artemisia pauciflora* were grown on ecological substrates (sandy loam, etc.). The soil salted with NaCl had a pH of 5.8; the unsalted, 7. The cell sap was expressed under a pressure of 300 atms. The sp. cond. of the cell sap of the halophytes increased during the growing period and with increase in the salt content of the substrate. Its pH was neutral or slightly alk. for plants grown on the salted substrate. The viscosity was greater at 0.5% NaCl in the substrate than at 2% or from unsalted soil.

M. G. Moore

Forestry Inst, AS USSR

1951

SHAKHOV, A. A.

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